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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/755,937	01/13/2004	James A. Bailey	Bailey 6-11	2017
22186	7590	04/11/2006	EXAMINER LE, DINH THANH	
MENDELSON AND ASSOCIATES, P.C. 1500 JOHN F. KENNEDY BLVD., SUITE 405 PHILADELPHIA, PA 19102			ART UNIT 2816	PAPER NUMBER

DATE MAILED: 04/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary

Application No.

10/755,937

Applicant(s)

BAILEY ET AL.

Examiner

DINH T. LE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| <p>1) <input type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>6) <input type="checkbox"/> Other: _____</p> |
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NON-FINAL REJECTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/17/06 has been entered.

Claim Rejections

Claim Rejections - 35 USC § 112

Claims 1-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Correction or clarification is required.

In claim 1, it is unclear how one of the gm cells can be "configured" to have zero transconductance by itself since the oscillation of the filter section of the present invention must be tuned by a control means (508) as shown in Figure 5. Thus, this recitation is descriptive.

The remaining claims are dependent from claim 1 and therefore also considered to be indefinite.

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Claim Rejections

Claim Rejections - 35 USC 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless B

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on-sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 5-14, 16-17 and 20 under 35 USC 102 (b) as being unpatentable over Deveirman (US 5,625,317).

As the best construed, Deveirman discloses a filter circuit in Figures 4-14 comprising:

- at least one of the one or more filter sections (700, Figures 7, 10), each comprising a plurality of transconductor (gm) cells; and
- at least one of the gm cells being configured to have substantially zero transconductance, such that the filter section (700) is oscillated at a cutoff frequency to tune each filter section.

With regard to claim 5, the at least one filter section (700, Figure 7) is adapted to be oscillated to tune other filter sections.

With regard to claim 12, the recitation "ladder filter" is read on the filter circuit as shown in Figure 6.

Response to Applicant's Arguments

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The applicant argues that the transconductance of Deveirman is not configured to equal to zero. The argument is not persuasive because Deveirman discloses at pages 7-8 that one of the filter section (700) is oscillated when it is tuned to have Q_0 that approach indefinite or the transconductance (gm_2 -gm, osc) is equal to zero. Thus, the transconductance of one of the tunable filter section (700) is equal to zero to oscillate as claimed.

Allowable Subject Matter

Claims 3-4, 15, 18-19 and 21-24 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and/or to include all of the limitations of the base claim and any intervening claims.

The claims are allowed because the prior art does not show:

- a third gm cell connected at both ends to the intermediate node; and a fourth gm cell connected between the output node and the intermediate node, wherein the third gm cell comprises a set of switches that enable the third gm cell to be configured to have substantially zero transconductance, such that the at least one filter section will oscillate; and the at least filter section comprises a tuning circuitry stored tuning control information for the at least filter section .
- the different input signal and the single input signal are applied to the first node and the second node.

Conclusion

Any inquiry concerning this communication or earlier communications from the


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examiner should be directed to DINH T. LE whose telephone number is (571) 272-1745.

The examiner can normally be reached on Monday-Friday (8AM-7PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TIMOTHY CALLAHAN can be reached at (571) 272-1740.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DINH LE
Primary Examiner